

# PATENT COOPERATION TREATY

From: XXXXXXXXXX  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL PRELIMINARY  
EXAMINING AUTHORITY

(PCT Rule 66)

To:

COHAUSZ & FLÖRACK PATENT-UND  
RECHTSANWÄLTE  
Bleichstrasse 14  
DE-402 11 Düsseldorf  
Tyskland

Eingang:	09. AUG. 2004
Post: 3	10. 09
WZ	/a

Date of mailing  
(day/month/year)

04 -08- 2004

Applicant's or agent's file reference

wy/sd 021035wo

**REPLY DUE**

within 60 days from  
the above date of mailing

International application No.

PCT/IB2002/004630

International filing date (day/month/year)

05-11-2002

Priority date (day/month/year)

International Patent Classification (IPC) or both national classification and IPC

G01C 17/28

Applicant

NOKIA CORPORATION et al

1. ☐ The written opinion established by the International Searching Authority:

☐ is

☐ is not

considered to be a written opinion of the International Preliminary Examining Authority.

2. This first (first, etc.) opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(e).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.  
For an informal communication with the examiner, see Rule 66.6.  
For an additional opportunity to submit amendments, see Rule 66.4.

**If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary report on patentability (Chapter II of the PCT) must be established according to Rule 69.2 is:

05-03-2005

Name and mailing address of the IPEA/SE

Patent- och registreringsverket  
Box 5055  
S-102 42 STOCKHOLM

Facsimile No. 46 8 667 72 88

Authorized officer

Sture Elnäs /itw

Telephone No. 46 8 782 25 00

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this opinion has been established on the basis of (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*):

☒ the international application as originally filed/furnished

☐ the description:

pages \_\_\_\_\_ as originally filed/furnished

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages \_\_\_\_\_ as amended (together with any statement) under Article 19

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_ as originally filed/furnished

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

Box No. V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-11, 15-25</u>
	Claims	
Inventive step (IS)	Claims	<u>12-14</u>
	Claims	
Industrial applicability (IA)	Claims	
	Claims	

2. Citations and explanations:

The most relevant documents cited in the International Search Report:

D1: US2002056202  
D2: US2002100178  
D3: JP2002168629  
D4: WO02009396

D1 discloses a three-axis (3D) magnetic sensor (part 0008) built into, as an example, a cellular phone (part 0053). The device furthermore comprises a tilt sensor to detect acceleration and displacement (part 0012)

D2 describes a three-axis compass. The compass comprises a magnetometer and is in an example embodiment made as a mobile electronic system (part 0056). The result is graphically displayed as a three-dimensionally image (figures 1, 2 and 4). Digital filters are suggested (part 0135).

D3 describes the concept of a magnetic direction detector for a portable telephone, built-in or externally connected to a portable terminal device. The magnetic sensor has two or more axes (abstract).

D4 discloses a mobile phone having a compass as a complementary unit (page 10, line 23 and claim 8), the indication figures shown on the display.

The invention according to claims 1-11 and 15-25 is known from each of document D1 to D3. Consequently, the invention claimed in claims 1-11 and 15-25 does not fulfil the requirement of novelty.

.../...

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

The invention according to claim 12-14 differs from what is disclosed in D1 to D3 by stating that the 3D magnetometer is a complementary unit to a user equipment. D4 describes a mobile phone comprising a compass as a complementary unit. For a person skilled in the art it is considered obvious that the compass unit described in D4 can also be a 3D compass as disclosed in D1 to D3 and will thus arrive at the invention claimed. Accordingly, the invention claimed in claims 12-14 does not fulfil the requirement of inventive step.

**Box No. VIII Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 7 is not considered clear in the sense of Article 6 PCT since it describes alternative embodiments.

Claims 13-15 cover all solutions for a unit or an equipment for a mobile electronic system, while the manner of claiming according to Rule 6.3 PCT shall be in terms of those technical features necessary for the claimed subject matter.